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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,419	10/06/2000	Nobuhiro Suetsugu	Q60879	1278
7590	04/11/2005		EXAMINER	
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W., Washington, DC 20037-3213			NGUYEN, NHON D	
			ART UNIT	PAPER NUMBER
			2179	

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/680,419	SUETSUGU ET AL.
	Examiner Nhon (Gary) D Nguyen	Art Unit 2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 28 February 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-19 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This communication is responsive to amendment, filed 02/28/2005.
2. Claims 1-19 are pending in this application. Claims 1, 6 and 9 are independent claims. In this amendment, no claim is canceled, claims 1, 6, 9 and 13-15 are amended, and claims 16-19 are added. This action is made non-final.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 9, 10, 12, 13-15 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Hansen (US 5,819,042).

As per independent claim 9 Hansen teaches a display drafting method comprising:  
selecting a device of a controller for use (60 and 62 of fig. 3B); and  
setting up a display drafting information for said selected device (96-99 of fig. 3B and fig. 5 and fig. 6).

Hansen further teaches wherein setting up the display drafting information after said device is selected (as in fig. 3B, the step of selecting device 60 is done before the step of configuring that device 96-993), wherein the device represents a signal or data involved in an operation of a system being controlled by the controller (col. 11, lines 16-32).

As per claim 10, which is dependent on claim 9, Hansen teaches selecting device further comprises selecting a device symbol and selecting a device number (figs. 5 and 6; col. 14, lines 28-36 and col. 15, lines 32-51).

As per claim 12, which is dependent on claim 10, it is inherent in Hansen's system to have changing at least one of said device symbol and said device number after setting up part of said display drafting information.

As per claims 13 and 14, which are both dependent on claim 9, whenever Hansen's system saves data such as display drafting information or device selection information, the processes of setting up the display drafting information and selecting device of the controller must be paused (or interrupted) for a period of time to allow the data to be saved completely before they can continue. Therefore, it is inherent that the processes of setting up the display drafting information and selecting device of the controller are interrupted when saving data of the display drafting information and saving data of a device selection information, respectively

As per claim 15, which is dependent on claim 9, Hansen teaches the selected device is used in display drafting and in a design of a control program for said controller, the design of a control program is performed separately from the display drafting (fig. 1B and fig. 4; col. 9, lines 40-52).

As per claim 18, Hansen teaches the device represents a numerical data of a controlled system (e.g. 202, 204 of fig. 5), the programmable controller is configured to control the operation of the controlled system (col. 9, lines 25-52).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6, 11, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen.

As per independent claim 1, Hansen teaches a computer implemented method and corresponding system for display drafting apparatus comprising the steps/means: means for selecting a device of a controller for use (60 and 62 of fig. 3B), and means for setting up display drafting information for said selected device (96-99 of fig. 3B and fig. 5 and fig. 6) comprising a display mode (e.g. col. 15, line 43; *connected* or *unconnected*) and a display function (col. 15, lines 32-51). Hansen does not disclose a display component can be set up for the selected device. The Examiner takes Official Notice that setting up display component of a device such as the Compaq Router 122 (fig. 7) to different looks is well known in the computer art. It would have been obvious to an artisan at the time of the invention to modify Hansen's system to include the feature of setting up display component of a device since it would give users many options to represent the look of the device.

Hansen further teaches wherein the means for selecting are used to select the device before the means for setting up are used to set up the display drafting information (as in fig. 3B, the step of selecting device 60 is done before the step of configuring that device 96-99), and wherein the device of the controller represents a signal or data stored in a memory of the controller (col. 11, lines 16-32).

As per claim 2, which is dependent on claim 1, Hansen does not disclose means for saving only device selection information for the controller selected by said device selecting means, wherein the device selection information can be saved, even if said selected device is a device for which the display drafting information is not set up. The Examiner takes Official Notice that Hansen's Network devices may include setup devices and non-setup devices. Non-setup devices obviously can be saved without being set up. It would have been obvious to an artisan at the time of the invention to modify Hansen's system to include the feature of saving devices without having them set up since it would eliminate unnecessary steps.

As per claims 3 and 4, which are dependent on claims 1 and 3 respectively, Hansen teaches a function of a control program schema generator for said controller therein, further comprising:

means for allowing the device selection information for said controller selected and created by said device selecting means to be used with said control program schema generator; and means for appending a comment to the device of said controller selected by said device

selecting means, and means for sharing the appended comment between said display drafting apparatus and said control program schema generator (figs. 4 and 7; col. 9, lines 25-52).

As per claim 5, which is dependent on claim 1, Hansen teaches the display drafting apparatus according to claim 1, further comprising:

control program schema generating means for said controller, and means for allowing the use of the device selection information for said controller selected and created by said device selecting means, when a program schema is generated by said generating means (figs. 4 and 7; col. 9, lines 25-52).

As per independent claim 6, it is a combination of claims 1 and 5; therefore, it is rejected under the same rationale as claims 1 and 5, combined.

As per claim 11, which is dependent on claim 9, it is rejected under the same rationale as claim 1.

As per claim 17, Hansen teaches:

the device represents a numerical data of a controlled system (e.g. 202, 204 of fig. 5),  
the programmable controller is configured to control the operation of the controlled system (col. 9, lines 25-52), and

the display drafting information informs an operator monitoring the controlled system at least of a type of the signal or data and state of the signal or value of the data (col. 11, line 16 – col. 12, line 6).

As per claim 19, Hansen does not disclose the controlled system is a production line. However, Examiner takes Official Notice that a controller of a control system applied for a production line would have been obvious to one of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Hansen's control system in a production line since it would have helped designers to design production line faster.

7. Claims 7, 8 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen in view of the applicant's admitted prior art.

As per claim 7, which is dependent on claim 6, Hansen does not explicitly discloses the display drafting apparatus, the display, and the controller of the display drafting system is connected in series and the data is transferred between these modules. Applicant's admitted prior art teaches the display drafting apparatus, the display, and the controller of the display drafting system is connected in series and the data is transferred between these modules (fig. 19). It would have been obvious to an artisan at the time of the invention to use the teaching from Applicant's admitted prior art of connecting the display drafting apparatus, the display, and the controller of the display drafting system in series and having data transferred between these

modules in modified Hansen's system since it would divide the processing jobs between modules and make the system run faster.

Modified Hansen further does not disclose these three modules are connected in series in order of the display drafting apparatus, the display, and the controller. The Examiner takes Official Notice that the order of connection is just a design choice and it is well known in the art. It would have been obvious to an artisan at the time of the invention to alternate the order of connection among the display drafting apparatus, the display, and the controller in modified Hansen's system since it would allow a user to create an optimal design.

As per claim 8, which is dependent on claim 6, Hansen in view of Official Notice does not explicitly disclose the display drafting apparatus, the display, and the controller of the display drafting system is connected in series and the data is transferred between these modules. Applicant's admitted prior art teaches the display drafting apparatus, the display, and the controller of the display drafting system is connected in series and the data is transferred between these modules (fig. 19). It would have been obvious to an artisan at the time of the invention to use the teaching from Applicant's admitted prior art of connecting the display drafting apparatus, the display, and the controller of the display drafting system in series and having data transferred between these modules in modified Hansen's system since it would divide the processing jobs between modules and make the system run faster.

Modified Hansen further does not disclose these three modules are connected in series in order of the display drafting apparatus, the controller, and the display. The Examiner takes Official Notice that the order of connection is just a design choice and it is well known in the art.

It would have been obvious to an artisan at the time of the invention to alternate the order of connection among the display drafting apparatus, the display, and the controller in modified Hansen's system since it would allow a user to create an optimal design.

As per claim 16, Hansen teaches the selected device is stored in a shared memory accessible to both the control program and the display drafting program (col. 11, line 16 – col. 12, line 6). Hansen, however, does not disclose the control program for the controller is designed using a ladder diagram. Applicant's admitted prior teaches a Relay Ladder diagram used to design control program for the controller (e.g. page 2, lines 2-7). It would have been obvious to one of ordinary skill in the art at the time of the invention to use Relay Ladder diagram to design control program for the controller in Hansen's system since one advantage of ladder diagram language is that it is a graphical language. This means it is easier to visualize what part of the logic which is active and which is not.

#### ***Response to Arguments***

8. Applicant's arguments filed 02/28/2005 have been fully considered but they are not persuasive.

Applicants argued the following:

(a) Referring to claims 1, 6 and 9, Hansen's icons representing network devices such as routers and connection between network devices cannot be equated with a device representing a signal or data.

(b) Claim 15 has been amended to further clarify that the control program is generated separately from the display drafting.

Examiner disagrees for the following reasons:

(a) Hansen's reciting in column 11, lines 16-32 still read on the claim language of claims 1, 6 and 9, in which, a network configuration map 106 stored in memory (fig. 4) represents data for a vendor specific device 112, here, a modular router manufactured by Compaq. Therefore, Hansen clearly teaches the added limitation "wherein the device of the controller represents a data stored in a memory of the controller."

(b) It is clearly that GUI 100 of fig. 4 is used as a display drafting to display the device information (e.g. device 112), design of a control program for the controller to configure a router or a computer subsystem is generated by a separately network device configuration tool 10 (fig. 1B).

### *Inquiries*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon (Gary) D Nguyen whose telephone number is (571)272-4139. The examiner can normally be reached on Monday - Friday with every other Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R Herndon can be reached on (571)272-4136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nhon (Gary) Nguyen  
April 05, 2005

BA HUYNH  
PRIMARY EXAMINER